

L Number	Hits	Search Text	DB	Time stamp
1	15993	biotin and (hyperlipid\$10 or dyslipid\$10 or lipid\$10)	USPAT; US-PGPUB	2003/10/25 17:54
2	541	biotin near100 (hyperlipid\$10 or dyslipid\$10 or lipid\$10)	USPAT; US-PGPUB	2003/10/25 17:54
3	460	biotin near25 (hyperlipid\$10 or dyslipid\$10 or lipid\$10)	USPAT; US-PGPUB	2003/10/25 17:54
4	315	biotin near5 (hyperlipid\$10 or dyslipid\$10 or lipid\$10)	USPAT; US-PGPUB	2003/10/25 17:54
5	53	biotin near (hyperlipid\$10 or dyslipid\$10 or lipid\$10)	USPAT; US-PGPUB	2003/10/25 17:55
6	1	biotin near25 (hyperlipid\$10 or dyslipid\$10 or serum near5 lipid\$10)	USPAT; US-PGPUB	2003/10/25 17:55
7	1060	biotin and (hyperlipid\$10 or dyslipid\$10 or serum near5 lipid\$10)	USPAT; US-PGPUB	2003/10/25 17:55
8	2	biotin near1000 (hyperlipid\$10 or dyslipid\$10 or serum near5 lipid\$10)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 17:56
9	0	biotin near99999 (hyperlipid\$10 or dyslipid\$10 or serum near5 lipid\$10)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 17:56
10	2	biotin near9999 (hyperlipid\$10 or dyslipid\$10 or serum near5 lipid\$10)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 17:56
11	2	biotin near900 (hyperlipid\$10 or dyslipid\$10 or serum near5 lipid\$10)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 17:56
12	2	biotin near500 (hyperlipid\$10 or dyslipid\$10 or serum near5 lipid\$10)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 17:56
13	2	biotin near250 (hyperlipid\$10 or dyslipid\$10 or serum near5 lipid\$10)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 17:56
14	2	biotin near100 (hyperlipid\$10 or dyslipid\$10 or serum near5 lipid\$10)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 17:57
15	0	biotin near (hyperlipid\$10 or dyslipid\$10 or serum near5 lipid\$10)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 17:57
16	1066	biotin and (hyperlipid\$10 or dyslipid\$10 or serum near5 lipid\$10)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 17:57
17	132	biotin and (hyperlipid\$10 or dyslipid\$10 or serum near5 lipid\$10) and chromium	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:05

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ACCESSION NUMBER: 1999210616 EMBASE
TITLE: High-dose biotin, an inducer of glucokinase expression, may synergize with chromium picolinate to enable a definitive nutritional therapy for type II diabetes.
AUTHOR: McCarty M.F.
CORPORATE SOURCE: Dr. M.F. McCarty, NutriGuard Research, 1051 Hermes Avenue, Encinitas, CA 92024, United States
SOURCE: Medical Hypotheses, (1999) 52/5 (401-406).
Refs: 75
ISSN: 0306-9877 CODEN: MEHYDY
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 003 Endocrinology
006 Internal Medicine
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ABSTRACT:

Glucokinase (GK), expressed in hepatocyte and pancreatic .beta. cells, has a central regulatory role in **glucose** metabolism. Efficient GK activity is required for normal **glucose**-stimulated insulin secretion, *****postprandial***** hepatic **glucose** uptake, and the appropriate suppression of hepatic **glucose** output and gluconeogenesis by elevated plasma **glucose**. Hepatic GK activity is subnormal in diabetes, and GK may also be decreased in the .beta. cells of type II diabetics. In supraphysiological concentrations, biotin promotes the transcription and translation of the GK gene in hepatocytes; this effect appears to be mediated by activation of soluble guanylate cyclase. More recent evidence indicates that biotin likewise increases GK activity in islet cells. On the other hand, high-dose biotin suppresses hepatocyte transcription of phosphoenolpyruvate carboxykinase, the rate-limiting enzyme for gluconeogenesis. Administration of high-dose biotin has improved **glycemic** control in several diabetic animals models, and a recent Japanese clinical study concludes that biotin (3 mg t.i.d. orally) can substantially lower fasting **glucose** in type II diabetics, without side-effects. The recently demonstrated utility of *****chromium***** picolinate in type II diabetes appears to reflect improved peripheral insulin sensitivity - a parameter which is unlikely to be directly influenced by biotin. Thus, the joint administration of supranutritional doses of biotin and **chromium** picolinate is likely to combat insulin resistance, improve .beta.-cell function, enhance **postprandial ***glucose***** uptake by both liver and skeletal muscle, and inhibit excessive hepatic **glucose** production. Conceivably, this safe, convenient, nutritional regimen will constitute a definitive therapy for many type II diabetics, and may likewise be useful in the prevention and management of gestational diabetes. Biotin should also aid **glycemic** control in type I patients.

CONTROLLED TERM: Medical Descriptors:
*non insulin dependent diabetes mellitus: DT, drug therapy
*non insulin dependent diabetes mellitus: ET, etiology
drug potentiation
enzyme activity
pancreas islet beta cell
insulin release
glucose transport
gluconeogenesis
promoter region
RNA translation
enzyme inhibition

glucose blood level
 drug safety
 insulin sensitivity
 insulin resistance: DT, drug therapy
 insulin resistance: PC, prevention
 skeletal muscle
 liver metabolism
 pregnancy diabetes mellitus: DT, drug therapy
 pregnancy diabetes mellitus: PC, prevention
 insulin dependent diabetes mellitus: DT, drug therapy
 drug mechanism
 human
 nonhuman
 oral drug administration
 intravenous drug administration
 intraperitoneal drug administration
 clinical trial
 review
 priority journal
 Drug Descriptors:
 *biotin: CT, clinical trial
 *biotin: CB, drug combination
 *biotin: DV, drug development
 *biotin: DO, drug dose
 *biotin: IT, drug interaction
 *biotin: DT, drug therapy
 *biotin: PD, pharmacology
 *chromium picolinate: CT, clinical trial
 *chromium picolinate: AD, drug administration
 *chromium picolinate: CB, drug combination
 *chromium picolinate: IT, drug interaction
 *chromium picolinate: DT, drug therapy
 *chromium picolinate: PD, pharmacology
 *glucokinase: EC, endogenous compound
 insulin: EC, endogenous compound
 glucose: EC, endogenous compound
 guanylate cyclase: EC, endogenous compound
 phosphoenolpyruvate carboxykinase (GTP): EC, endogenous compound
 glibenclamide: DO, drug dose
 glibenclamide: DT, drug therapy
 antiinfective agent: CB, drug combination
 (biotin) 58-85-5; (chromium picolinate) 14639-25-9;
 (glucokinase) 37237-53-9, 9001-36-9; (insulin) 9004-10-8;
 (glucose) 50-99-7, 84778-64-3; (guanylate cyclase)
 9054-75-5; (phosphoenolpyruvate carboxykinase (GTP))
 9013-08-5; (glibenclamide) 10238-21-8

CAS REGISTRY NO.:

18	49	post near prandial and (chromium or biotin)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:08
19	8	post near prandial and (chromium and biotin)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:19
20	33	glycemic near index and (chromium and biotin)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:15
21	12	glycemic near index near food and (chromium and biotin)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:15
22	16	glycemic near5 index near5 food and (chromium and biotin)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:15
23	19	glycemic near5 index near5 food and (chromium or biotin)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:15
24	20	glycemic near5 index near5 food and (chromium or biotin)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:15
25	36	postprandial and (chromium and biotin)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:20
26	33	(postprandial and (chromium and biotin)) not (post near prandial and (chromium or biotin))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:19
27	124	postprandial and (chromium or biotin)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:24
28	72	(postprandial and (chromium or biotin)) not ((post near prandial and (chromium or biotin)) or (postprandial and (chromium and biotin)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:21
29	26	postprandial and (chromium or biotin) and glycemic near index	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:27
30	49	(chromium or biotin) and glycemic near index	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:29

31	52	(chromium or biotin) and glycemic near5 index	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:29
32	3	((chromium or biotin) and glycemic near5 index) not ((chromium or biotin) and glycemic near index)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/10/25 18:29

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(FILE 'HOME' ENTERED AT 18:33:08 ON 25 OCT 2003)

FILE 'EMBASE, BIOSIS, EUROPATFULL, JAPIO, ADISCTI, ADISINSIGHT, ADISNEWS, BABS, BIOBUSINESS, BIOCOMMERCE, BIOTECHNO, CANCERLIT, CAPLUS, CBNB, CEN, CIN, CONFSCI, DISSABS, DGENE, DIOGENES, DRUGB, DRUGLAUNCH, DRUGMONOG2, DRUGNL, DRUGU, DRUGUPDATES, EMBAL, ...' ENTERED AT 18:33:23 ON 25 OCT 2003

L1 1227 SEA BIOTIN AND (SERUM (5A) (LIPID? OR HYPERLIPID? OR DYSLIPID?)
L2 62 SEA BIOTIN (9999A) (SERUM (5A) (LIPID? OR HYPERLIPID? OR
L3 39 DUP REM L2 (23 DUPLICATES REMOVED)
D 1-
D 31 IALL

FILE 'STNGUIDE' ENTERED AT 18:41:47 ON 25 OCT 2003

FILE 'EMBASE, BIOSIS, EUROPATFULL, JAPIO, ADISCTI, ADISINSIGHT, ADISNEWS, BABS, BIOBUSINESS, BIOCOMMERCE, BIOTECHNO, CANCERLIT, CAPLUS, CBNB, CEN, CIN, CONFSCI, DISSABS, DGENE, DIOGENES, DRUGB, DRUGLAUNCH, DRUGMONOG2, DRUGNL, DRUGU, DRUGUPDATES, EMBAL, ...' ENTERED AT 18:42:55 ON 25 OCT 2003

L4 1035 SEA BIOTIN (L) (SERUM (5A) (LIPID? OR HYPERLIPID? OR DYSLIPID?)
L5 978 DUP REM L4 (57 DUPLICATES REMOVED)
D 1-
L6 939 SEA L5 NOT L2
L7 192 SEA L1 NOT L4
L8 189 DUP REM L7 (3 DUPLICATES REMOVED)
D 1-
D 188 IALL
L9 293 SEA (POSTPRANDIAL OR POST PRANDIAL) AND (BIOTIN OR CHROMIUM)
L10 224 DUP REM L9 (69 DUPLICATES REMOVED)
L11 53 SEA L10 AND CHROMIUM AND BIOTIN
L12 139 SEA L10 AND CHROMIUM
L13 138 SEA L10 AND BIOTIN
D 1-
D 123 KWIC
D 115 KWIC
L14 86 SEA L12 NOT L13
D 1-
D 86 KWIC

d his ful

(FILE 'EMBASE, BIOSIS, EUROPATFULL, JAPIO, ADISCTI, ADISINSIGHT,
ADISNEWS, BABS, BIOBUSINESS, BIOCOMMERCE, BIOTECHNO, CANCERLIT, CAPLUS,
CBNB, CEN, CIN, CONFSCI, DISSABS, DGENE, DIOGENES, DRUGB, DRUGLAUNCH,
DRUGMONOG2, DRUGNL, DRUGU, DRUGUPDATES, EMBAL, ...' ENTERED AT 18:42:55
ON 25 OCT 2003)

DEL HIS

L1 99 SEA GLYCEMIC (5A) INDEX AND (CHROMIUM OR BIOTIN)

L2 68 DUP REM L1 (31 DUPLICATES REMOVED)

D 1-

D 57 IALL

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